

CHAPTER 69-10-03 STANDARDS

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69-10-03-01. National institute of standards and technology (NIST) Handbook No. 44. Except as modified in this article, the specifications, tolerances, tests, and other technical requirements for commercial weighing and measuring devices in North Dakota must conform to the following sections and subsections of the 1999 edition of the United States department of commerce, NIST Handbook No. 44, which is adopted by reference: all of section 1, section 2 (except subsection 2.24), all of subsection 3.30, subsection 3.31 (except S.1.1.1., UR.2.2., and UR.2.3.), subsection 3.32 (except UR.2.5. and UR.2.6.), and all of subsections 3.33, 3.35, and 3.37. In the event of a conflict between the NIST Handbook No. 44 and North Dakota laws and rules, North Dakota laws and rules shall prevail. Copies of the handbook may be obtained from:

Public Service Commission
600 East Boulevard, Dept. 408
Bismarck, ND 58505-0480

History: Amended effective October 1, 1988; December 1, 1990; February 1, 1992; August 1, 1993; September 1, 1994; February 1, 1996; July 1, 1997; July 1, 1998; October 1, 1999; August 1, 2000; January 1, 2002; May 1, 2005.

General Authority: NDCC 64-02-03

Law Implemented: NDCC 64-02-07

69-10-03-01.1. National institute of standards and technology (NIST) Handbook No. 44 - NTEP - Exceptions. North Dakota may consider the requirements of the national type evaluation program (NTEP) referenced within any edition of NIST Handbook No. 44 adopted by this state, but shall not require NTEP certification as a prerequisite for the design, sale, installation, operation, and certification of a commercial device.

History: Effective January 1, 2002.

General Authority: NDCC 64-02-03

Law Implemented: NDCC 64-02-02

69-10-03-01.2. National institute of standards and technology (NIST) Handbook No. 105-1 - Specifications and tolerances for reference standards and field standard weights and measures - Specifications and tolerances for class f field standard weights. The specifications, tolerances, and other technical requirements for reference standards and field standards used for testing commercial weighing and measuring devices in North Dakota shall conform to the sections and subsections of the 1990 edition of the United States department of commerce, NIST Handbook No. 105-1, which is adopted by reference. In the event of a conflict, North Dakota laws and other administrative rules shall prevail. Copies of the handbook may be obtained from:

Public Service Commission
600 East Boulevard, Dept. 408
Bismarck, ND 58505-0480

History: Effective March 1, 2003.

General Authority: NDCC 64-02-03

Law Implemented: NDCC 64-02-03

69-10-03-01.3. National institute of standards and technology (NIST) Handbook No. 105-3 - Specifications and tolerances for reference standards and field standard weights and measures - Specifications and tolerances for graduated neck-type volumetric field standards. The specifications, tolerances, and other technical requirements for reference standards and field standards used for testing commercial measuring devices in North Dakota shall conform to the sections and subsections of the 1997 edition of the United States department of commerce, NIST Handbook No. 105-3, which is adopted by reference. In the event

of a conflict, North Dakota laws and other administrative rules shall prevail. Copies of the handbook may be obtained from:

Public Service Commission
600 East Boulevard, Dept. 408
Bismarck, ND 58505-0480

History: Effective March 1, 2003.

General Authority: NDCC 64-02-03

Law Implemented: NDCC 64-02-03

69-10-03-01.4. National institute of standards and technology (NIST) Handbook No. 105-4 - Specifications and tolerances for reference standards and field standard weights and measures - Specifications and tolerances for liquefied petroleum gas and anhydrous ammonia liquid volumetric provers.

The specifications, tolerances, and other technical requirements for reference standards and field standards used for testing commercial liquefied petroleum gas and anhydrous ammonia liquid measuring devices in North Dakota shall conform to the sections and subsections of the 1997 edition of the United States department of commerce, NIST Handbook No. 105-4, which is adopted by reference. In the event of a conflict, North Dakota laws and other administrative rules shall prevail. Copies of the handbook may be obtained from:

Public Service Commission
600 East Boulevard, Dept. 408
Bismarck, ND 58505-0480

History: Effective March 1, 2003.

General Authority: NDCC 64-02-03

Law Implemented: NDCC 64-02-03

69-10-03-02. Adequate standards. Only standards annually certified by the commission may be used to certify commercial weighing and measuring devices. However, standards annually certified by any national institute of standards and technology accredited laboratory may be used if a legible copy of the certification is first filed with the commission. Annual recertification is subject to the following exceptions and conditions:

1. The twelve-month recertification period may be extended after consultation with the state metrologist, but not to exceed fifteen months.
2. The standard weights or "test weights" used in a commercial automatic bulk-weighing system must initially be certified by the commission or by another national institute of standards and technology accredited state laboratory.
3. The volumetric provers used to certify loading-rack meters must initially be certified by the commission or by another national institute

of standards and technology accredited state laboratory, and at least once every three years thereafter.

4. The commission may require recertification of the "test weights" described in subsection 2, and the volumetric provers described in subsection 3 if, upon inspection, physical condition indicates a need.
5. Unless otherwise approved by the commission, the operator of a coal belt conveyor scale jurisdictional to the commission must conduct a material load test at least once every two years provided that electronic or other simulated load testing is done at least once every three months.
6. The commission may test and inspect any commercial LPG meters by using a certified master meter that has a flow rate of twelve to sixty gallons [45.4 to 227.1 liters] per minute at 0.02 percent accuracy, and has an orifice size of one and one-half inches [38.1 millimeters]. A master meter must be tested and certified quarterly with a prover traceable to national institute of standards and technology.

History: Amended effective April 1, 1992; September 1, 1994; February 1, 1996; July 1, 1997.

General Authority: NDCC 64-02-03

Law Implemented: NDCC 64-02-02, 64-02-13

69-10-03-03. Master test weights and prover tanks. Repealed effective April 1, 1992.

69-10-03-04. Enforcement. Repealed effective May 1, 2005.

69-10-03-05. Weight carts. Effective January 1, 2002, weight carts not already in service in North Dakota and seeking metrology certification must meet the following design specifications: wheelbase must not exceed sixty inches [152.4 centimeters], motors must be electric or powered by gel core batteries, gross weight must not exceed five thousand pounds [2267.95 kilograms], tires must be of solid rubber with smooth tread, and sealing cavities must be capable of containing twenty pounds [9.072 kilograms] of lead adjustment.

History: Effective January 1, 2002.

General Authority: NDCC 64-02-03

Law Implemented: NDCC 64-02-02

69-10-03-06. Metrology service. Metrology service at the commission laboratory will only be provided as set out in this section:

1. All metrology service requests must be by appointment only and will be according to the following:
 - a. Testing and safety division metrology;

- b. State-registered service company metrology;
 - c. North Dakota law enforcement metrology;
 - d. Industrial customer metrology; and
 - e. All other metrology.
2. The director shall send out annual appointment notifications by mail to all state-registered service companies at least thirty days prior to each company's appointment date.
 3. If a party with a scheduled metrology appointment needs to cancel that appointment, the party shall notify the commission of the need to cancel at least seven days in advance of the appointment. Appointments cancelled within less than seven days advance notice will lose scheduling priorities. The party canceling a metrology appointment may request a new appointment date at that time.
 4. Metrology appointments will be requested and confirmed by telephone, e-mail, facsimile, or in writing by mail. A party requesting a metrology appointment should plan at least thirty days' advance notice to the commission on any metrology appointment requests.
 5. A metrology request not previously scheduled may only be serviced as time becomes available.
 6. A metrology request for service beyond the scope of the laboratory's certification of recognition level will be referred to an appropriate NIST-accredited metrology laboratory.

History: Effective May 1, 2005.

General Authority: NDCC 64-02-03

Law Implemented: NDCC 64-02-02

69-10-03-07. Delivery of standards for certification. Standards delivered to the metrology laboratory for testing and certification must be submitted undamaged and serviceable and must comply with the following:

1. Vehicle scale test carts must be cleaned and painted with all fluid levels topped off to their calibrated reference levels.
2. Cast iron weights must be cleaned and painted following the requirements in NIST Handbook No. 105-1, section 2, as adopted by reference in section 69-10-03-01.2.
3. Provers and test measures, including sight glasses, must be cleaned inside and out and contain no hydrocarbon residue or other pollutants.

4. Provers must have a simple, sturdy, and adequate leveling means on the legs allowing for adjustments with a single tool.
5. Provers must have two level indicators mounted on the body of the prover at right angles to each other for leveling purposes.
6. Mild steel provers must be periodically painted as determined by the metrologist, and as recorded in the remarks section on the previous year's calibration report.
7. Mild steel test measures, including sight glasses, must be cleaned inside and out and contain no hydrocarbon residue or other pollutants.
8. Class F weights must meet the applicable material and design requirements of NIST Handbook No. 105-1, as adopted by reference in section 69-10-03-01.2.
9. Fabricated weights, brass weights, and cast iron weights equal to or less than ten pounds [4.54 kilograms] may not be used.
10. Laminated weights must not be adjusted and must be removed from service when the weights fail to maintain the applicable tolerance.
11. Volume standards placed in service after January 1, 1998, must meet the requirements of NIST Handbook No. 105-3 or 105-4, as adopted by reference in sections 69-10-03-01.3 and 69-10-03-01.4.
12. A volume standard placed in service before January 1, 1998, that has maintained annual certification need not meet the requirements of NIST Handbook No. 105-3 or 105-4, as adopted by reference in sections 69-10-03-01.3 and 69-10-03-01.4, unless a standard has been removed from service for a period greater than twelve months.
13. Special seals or special tools required for the test or calibration, which is of a unique nature to a particular standard, must be supplied by the standard owner prior to the beginning of the metrology process.
14. If weights greater than one hundred pounds [45.36 kilograms] or provers with capacities greater than fifty gallons [189.27 liters] are shipped to the metrology laboratory, the weights or provers must be shipped on an open flatbed truck or trailer.
15. Standards that are not in compliance with any of the above requirements will not be accepted for testing and certification.

16. A standard that is not tested and certified may not be used to test and certify a commercial device unless a variance is obtained from the commission, or unless the standards is recertified.

History: Effective May 1, 2005.

General Authority: NDCC 64-02-03

Law Implemented: NDCC 64-02-02

69-10-03-08. Rejection of standards. Rejected standards must be removed from service as follows:

1. A standard that has been rejected must be conspicuously marked by sealing, tagging, or painting as appropriate to that standard.
2. A rejected standard may not be used to test and certify a commercial weighing and measuring device. The use of a rejected standard may result in commission enforcement action.
3. A standard not meeting appropriate design criteria may be allowed to remain in service for a limited time, provided a variance is obtained from the commission prior to certification or recertification.

History: Effective May 1, 2005.

General Authority: NDCC 64-02-03

Law Implemented: NDCC 64-02-02